

Work Order ID 108921

October-29-13 10:18:28 AM

Item ID: D3439-101

Revision ID:

Item Name: 8" Mirror Assy

Start Date: 10/29/13 Start Qty: 20.00

D 3 4 3 9 - 1 0 1

B 1 0 8 9 2 1

Accept

20

20

Reference:

Approvals: Process Plan: MJS

Date: 10-29 Tooling:

Date:

Run Start

NR1

QC:

Date: SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
100 *100* Purchasing Purchasing	PURCHASING Rev B Memo Issue P/O: 21873 For Grote Mirror P/N: 12183 Possible Supplier: UAP/NAPA Material release note is required	0.00 0.00							13/10/30 (20)
110 *110* Packaging Packaging	Receive & Inspect for Damage & Mat'l Certs Memo Ensure Material Release Note is attached	0.00 0.00							13/11/4 (20)
115 *115* QC Quality Control	QC6- Inspect dimensions to drawing Memo	0.00 0.00	DAS 27 9-89						20 13/11/4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS														
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>												
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>												
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>												
			Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>													
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector										
Design																			
Doc/Data																			
Equip/Tooling																			
Handling/Pre																			
Material																			
Operator																			
Offset/Setup																			
Process																			
Supplier																			
Training																			
Transport																			
Unapproved																			
FAULT CATEGORY																			
Landing Gear			General																
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function							<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence			<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge			<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled		<input type="checkbox"/> Other	

Work Order ID 108921

October-29-13 10:18:28 AM

108921

Page 2

Item ID: D3439-101

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: 8" Mirror Assy

Start Date: 10/29/13 Start Qty: 20.00

20

Cust Item ID:

Required Date: 10/29/13 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID
120

120

Small Fab

Small Fab

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

0.00

18x

13/12/24

DAS
36
9-89

Memo

0.00

- 1- Discard Hardware.
 - 2- Drill and Tap mirror as per Dwg using DT9670 , then install stud as per dwg.
 - 3- Plug drain holes with Sikaflex.
- Ensure that mirror adheres to housing.

Pick:

Qty	Part Number	Description	Batch
A/RN/A	Sikaflex-241/-291		1127097
Sikaflex expiry date 14/07/16			

DAS

27

9-89

130

QC5- Inspect part completeness to step on W/O

0.00

0.00

18/11/17

130

QC

Quality Control

DQA

Art. 2

Date: 14/01/24

QA Closed

Date: 14/01/10

WORK ORDER NON-CONFORMANCE / UPDATE



Work Order update only

Work Order: <u>108921</u>	DISPOSITION	AGAINST DEPARTMENT/PROCESS					
Part No. <u>D3439-101</u>	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. <u>14-3401</u>	Scrap <input checked="" type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input checked="" type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>			

FAULT CATEGORY

Work Order ID 108921

108921

Page 3

October-29-13 10:18:28 AM

Item ID: D3439-101

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: 8" Mirror Assy

Stop

NS2

Start Date: 10/29/13 Start Qty: 20.00

20

Cust Item ID:

Required Date: 10/29/13 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID
140

140

Packaging

Packaging

Operation
Description
Identify as per dwg & Stock Location:

Set Up/
Run Hours
0.00

Tool ID
Tool #
Plan
Code

Accept
Qty
Reject
Qty
Reject
Number

DAS
32
989

2 14/01/17

150

QC21- Final Inspection - Work Order Release

0.00

150

QC

Quality Control

Memo

St201

0.00

PL14-01-7

PL14-01-1

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
			Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Design										
Doc/Data										
Equip/Tooling										
Handling/Pre										
Material										
Operator										
Offset/Setup										
Process										
Supplier										
Training										
Transport										
Unapproved										
FAULT CATEGORY										
Landing Gear			General							
Bending	Bend <input type="checkbox"/>	General	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>					
Centre Not Concentric	BOM/Route <input type="checkbox"/>		Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>					
Cracks	Broken/Damage/Defect <input type="checkbox"/>		Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>					
Crimp/Kink/Ripple/Wave	Burrs <input type="checkbox"/>		Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>					
Cuffs	Contamination <input type="checkbox"/>		Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>					
Crushing	Countersink <input type="checkbox"/>		Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>						
Heat Treat	Cut Too Short <input type="checkbox"/>		Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>					
Inspection Strip in Tube	Drawing <input type="checkbox"/>		Misread <input type="checkbox"/>							
Marks/Chatter	Drill Holes <input type="checkbox"/>		Off-set <input type="checkbox"/>							
Turning Sequence	Finish <input type="checkbox"/>		Out of Calibration <input type="checkbox"/>							
Wave/Twist in Tube	Fit/Function <input type="checkbox"/>		Out of Sequence <input type="checkbox"/>							

DQA: _____ Date: _____



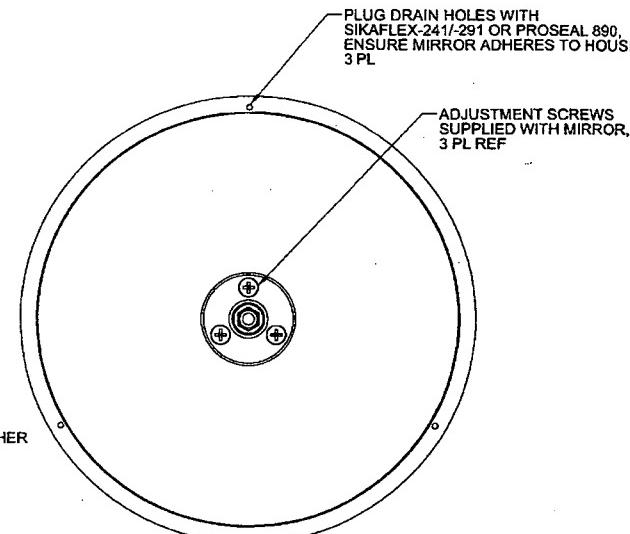
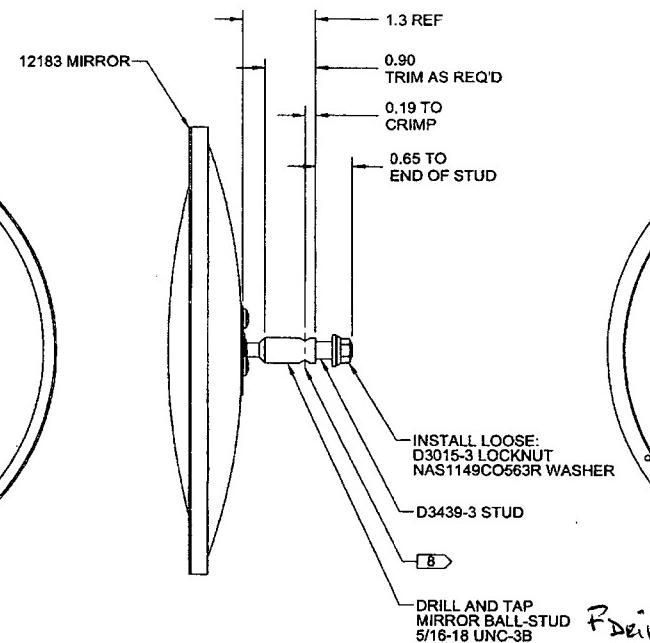
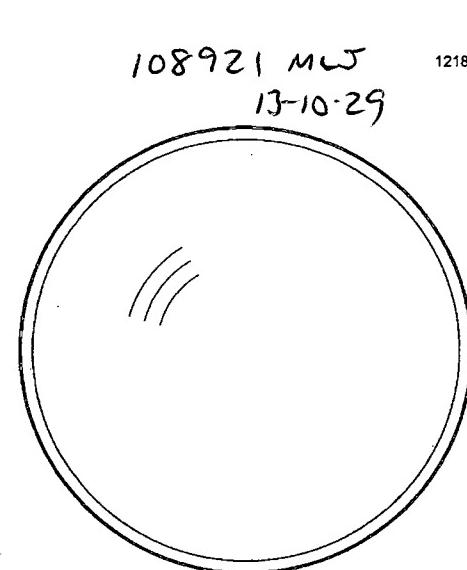
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS									
Part No. _____ NCR No. _____			Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Suspected Unapproved <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Quality <input type="checkbox"/>	Other <input type="checkbox"/>			
Root Cause	Date	Step	Qty	Description of work order update or non-conformance			Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector			
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved															
FAULT CATEGORY															
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function				<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence				<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	

ITEM	QTY -101	P/N	DESCRIPTION
1	X	D3439-101	MIRROR ASSEMBLY, 8"
2	1	12183	MIRROR 8" (GROTE)
3	1	D3015-3	LOCKNUT
4	1	D3439-3	STUD
5	1	NAS1149CO563R	WASHER (OR AN960JD516)



D3439-101 MIRROR ASSEMBLY

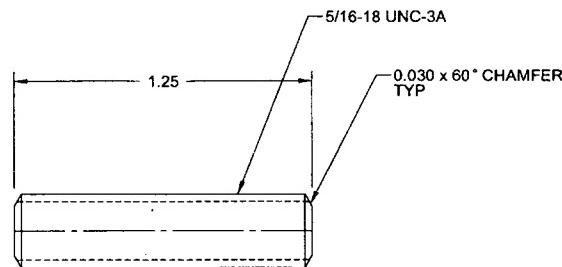
RELEASED
2010-09-07
AN

NOTES:

- 1) MATERIAL: MIRROR= 8" ROUND CONVEX MIRROR W/ STAINLESS STEEL CASE
CENTER-MOUNT BALL-STUD W/ 1/4-20 X 1" DEEP FEMALE THREAD
GROTE INDUSTRIES, 2600 LANIER DRIVE, MADISON, INDIANA 47250
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART PIN "D3439-101" USING REMOVEABLE TAG
- 7) WEIGHT: 1.18 lbs
- 8) TO INSTALL D3439-3 STUD:
 - APPLY LOCTITE 262 TO THREADS BEING INSTALLED INTO MIRROR BALL-STUD
 - THREAD D3439-3 STUD INTO MIRROR BALL-STUD
 - CRIMP MIRROR BALL-STUD ON OPPOSING SIDES, 0.19 FROM END AS ILLUSTRATED USING TOOL DT8317
 - CRIMP TO DEPTH OF 0.015-0.030 USING R0.125

B	REDRAW, ADD -3 (WAS PURCHASED/TRIMMED BOLT). RMV LPS	CP	10.07.20
A	NEW ISSUE	CP	05.05.27
REV.	DESCRIPTION	BY	DATE
DESIGN	DART AEROSPACE LTD		
DRAWN	HAWKESBURY, ONTARIO, CANADA		
CHECKED	DRAWING NO. REV. B		
MFG. APPR.	D3439 SHEET 1 OF 2		
APPROVED	TITLE SCALE		
DE APPR.	MIRROR ASSEMBLY NTS		
DATE	10.07.20		

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D3439-3 STUD

- NOTES:**
- 1) MATERIAL: AISI 303 STAINLESS STEEL ROUND BAR PER ASTM A582
REF DART SPEC M303R
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.03 lbs

DESIGN		DART AEROSPACE LTD
DRAWN		HAWKESBURY, ONTARIO, CANADA
CHECKED		DRAWING NO.
MFG. APPR.		REV. B
APPROVED		D3439
DE APPR.		SHEET 2 OF 2
DATE	10.07.20	SCALE
		NTS
		MIRROR ASSEMBLY
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RELEASED
2010-09-07

8 7 6 5 4 3 2 1



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO21873**

Purchase Order Date 10/30/2013

PO Print Date 10/30/2013

Page Number 1 of 1

Order From : VC-UAP001

HAWKESBURY AUTO PARTS
514 MAIN STREET WEST
HAWKESBURY, ON K6A 2J2
CA

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

F O B 10/30/2013

Contact Name

Vendor Phone 613 632 8575

Buyer Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency CAD

FOB Destination-Collect

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
Line Comments			Promise Date				
Delivery Comments							
1	12183	Grote Mirror	11/1/2013 Yes 11/1/2013		20.00 Each	\$21.49	\$429.80

AS PER DWG D3439 REV. B
B108921

Line Total:

\$429.80

PO Total:

\$429.80

Note: Pricing listed above is as per contract agreement between Dart Aerospace and the respective manufacturer.

No substitution or deviation without consent.

Certificate of Conformity or Material Certification required - YES NO
PST# 6122-5207

Change Nbr:

1

Change Date: 10/30/2013



HAWKESBURY AUTO PARTS INC 5580GST#: 861597896RT0001
514 MAIN STREET WEST
HAWKESBURY, ONT. K6A 2J2
TEL: 632-8575 FAX: 632-1539

DANGEROUS GOODS PERMIT
EXPIRY DATE:

EMERGENCY TELEPHONE NUMBER 24 HOURS
CANUTEC 613-996-6666

ICT #	SOLD TO		DATE	TIME	STORE #	EMP #	INVOICE NO.
1601	DART AEROSPACE LTD 1270 ABERDEEN STREET HAWKESBURY, ONTARIO K6A 1K7		11/04/13	08:39	060004074	22	417864
IR #					PURCHASE ORDER #		ATTENTION
40					21873		
AD					TAX EXEMPTION: 6122-5207		
3					TERMS: NET 30 DAYS	CHARGE SALE	
					DELIVERY:		
PART NUMBER	LN	DESCRIPTION	QUANTITY	PRICE	NET	TOTAL	
3183B	GRO	CONVEX MIRROR	20.00	33.670	21.490	429.80	T10

REFUNDED BY _____

Subtotal 429.80

55.87

VERIFIED BY _____

Tax 13% ON HARMONIZE

0.00

Tax 0%


SIGNATURE

ALL GOODS RETURNED MUST BE ACCOMPANIED BY THIS INVOICE

TOTAL ----> CHARGE SALE 485.67